## : h u g o m üller

switching controlling counting


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## : h ugom üller

INNOVATIONAL SPIRIT FROM THE BLACK FOREST

1929 till this day ... and in the future
he company was founded in 1929 by Hugo Müller. Within a very short time the innovative company had become well known in the locality as a manufacturer of high quality loudspeakers, headphones, radio assembly kits, radios and, some time later, radio time switches.

For Hugo Müller, the change to electronics occurred in 1978, when the first time switch capable of being programmed for a yea was introduced to the market. Its success was also virtually pre-programmed - the new product was exceptionally well received.

Today, time switches continue to be an important element of the product range, albeit with features which are subject to continuous improvement. This characteristic reflects the company's objective for the future. The consistent optimization and expan sion of the standard product range, including tailormade products to meet individual customers' specific needs.
ur product solution range includes timing devices such as analog and digital timers, master clocks, hour meters, count down timers and light control devices such as analog and digital twilight switches, astronomical time switches, staircase timers, dim mers and also devices for climate control and building automation (KNX)

OEM
Hugo Müller is your partner whenever you need a customized electro-technical product. We manage the transition from your wishes and vague specifications to well-designed and sellable products.

Hard- and software development, prototyping and serial production are carried-out in our premises. This allows us to advis and support you through the complete development process. Our experts in development and production are efficiently realizing your ideas according to relevant laws, standards and directives. The products are produced with latest technologies and tested your ideas according to relevant laws, standards and directives. The products are pros inspection devices. The quality of your product has highest priority.

All products are manufactured in Schwenningen - we offer quality „Made in Germany".
Hugo Müller produces your control and switching devices for time, light, temperature or air quality applications.
For each single problem we'll find a solution. Please contact us, we're happy to talk to you.


# Digital time switches week for DIN-rail mounting <br> week ${ }^{\text {prog }}$ 

- Daily and weekly program

Minimum interval 1 min
Permanent by date

- Manual permanent mode
- Manual override
- Variable block programming
- Automatic daylight saving time (Europe, USA, Australia or none)

Elapsed time and pulse counter

- Pulse function
- Security by PIN-Code
- Text based menu
- Data security through E²PROM
- Programmable with PC or Smartphone (see accessories)



## 

- DIN-rail mounting 35 mm
- $1-2$ channels / 56 memory locations
- Switching capacity 16 A
- 10 years battery-reserve / exchangeable battery
- Ideal for modern lamps (LED)
- Simple yearly program
- Illuminated display / Display of the switching program

- DIN-rail mounting 35 mm
- $1-2$ channels / 100 memory locations
- Switching capacity 16 A
- 10 years battery-reserve/ exchangeable battery
- Ideal for modern lamps (LED)

2ero-cross switching (up to 600 W LED load)

- Simple yearly program
- Random function / Cycle function
- Illuminated display / Display of the switching program

- DiN-rail mounting 70 mm
- $1-4$ channels / 300 memory locations
- Switching capacity 16 A
- 10 years battery-reserve / exchangeable battery

Ideal for modern lamps (LED)
Eero-cross switching (up to 600 W LED load)

- Rende yearly program / Astro program
- Illuminated display / Display of the switching program
$\qquad$
SC 08.11 pro 172110 pro
.
- 6 years battery-reserve

Removable programming module



| 1 channel | 2 channels |
| :---: | :---: |
| $\left.\int_{1} \int_{2}^{A}\right]_{3}$ | $\left.\prod_{1} \bigcap_{2}^{A} \prod_{3 \ldots} \int_{0}^{B}\right]_{9}^{B}$ |





# Digital time switches week－further housing designs week ${ }^{\text {prog }}$ 

Daily and weekly program
Minimum interval 1 min．
－Permanent by date／holiday function
Manual permanent mode
Manual override
－Variable block programming
－Automatic daylight saving time（Europe，USA，Australia or none
－Elapsed time and pulse counte
－Pulse function
－Security by PIN－Code
－Text based menu
－Data security through E2PROM
－Switchboard panel mounting
－ 1 channel／ 46 memory location
－Switching capacity 8 A
－ 4 years battery－reserve
－External input

Sc 24.10 pro


Switchboard panel and wall mounting
－Switchboard pane and $1-2$ channels 46 memory locations
－Switching capacity 16 A
－ 10 years battery－reserve
－Programmable with PC（see accessories）
－Data－key function
－Illuminated display


NFC Flush－mounted fiting


8
－Flush－mounted fitting
－Universal control unit Blinds control
－ 2 channels／ 100 memory locations
－Switching capacity 6 A
－ 10 years battery－reserve
－Programmable with Smartphone
－Up to 50 m range




# Digital time switches astro 

- Astro program: Automatic switching according to the position of the sun
Economical night program
Minimum interval 1 min.
Manual permanent mode
- Manual override
- Automatic sorting of switching times
astr-'óspos
- Automatic daylight saving time (Europe, USA, Australia or none)
- Security by PIN-Code
- Ideal for modern lamps (LED, CFL, etc.)
- Data security through E2PROM
- Programmable with PC or Smartphone (see accessories)

- Digital time switch astro with weekly program
- DIN-rail mounting 35 mm
- $1-2$ channels / 56 memory locations
- Switching capacity 16 A
- Extra switchin-reserve / exchangeable battery
- Extra switching times (weekly timer function)
- Illuminated display / Display of the switching program

- Digital time switch astro with weekly program
- DIN-rail mounting 35 mm
- DIN-rail mounting 35 mm
- $1-2$ channels / 100 memory locations
- Switching capacity 16 A
- Zero-cross switching (up to 600 $\mathbf{W}$ LeDl battery
- Zero-cross switching (up to 600 W LED load)
- Illuminated display / Display of the switching program

$\stackrel{N F}{N+}$


## Digital time switch astro with weekly program

- Flush-mounted fitting
- 1 channel/ 56 memory locations
- Switching capacity 10 A
- 10 years battery-reserv

Extra switching times (weekly timer function)
anded display/ Display of the switching progra

- paladinder

Can be used with many common switch designs
-müller $\quad \begin{gathered}\text { paladin } \\ \text { bymine }\end{gathered}$ 172113 pro

| $\int_{1}^{A} \int_{2}^{A}$ |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 1 channel | 2 channels |  |  |
| 1 channe | 2 channels $\left.\left.\left.\left[\int_{2}^{A}\right]_{3}^{A} \prod_{3}^{B}\right]_{9}^{B}\right]_{10, \ldots}\right]_{N}$ | 范 |  |





2 channels



## Digital time switches year

- Daily, weekly and yearly program
- Yearly program with Easter function, Weekday function
and extra-switching time function
Minimum interval 1 min
Permanent by date / holiday function / Man. permanent mode
Manual override
Variable block programming
- Automatic daylight saving time (Europe, USA, Australia or none)


## 

- DIN-rail mounting 35 mm
- 1 channel/ 300 memory locations

Switching capacity 16 A

- 10 years battery-res
- Cycle function
- DCF / GPS function
- Up to 300 permanent switchings by date

- DIN-rail mounting 70 mm
- $1-4$ channels / 300 memory locations
- Switching capacity 16 A

10 years battery-reserve / exchangeable battery

- Zero-cross switching (LeD)
- Cero-cross switching (up to 600 W LED load)
- DCF / GPS function
- Illuminated display / Display of the switching program

- $19^{\prime \prime}$-housing
mip pion zo 2 or 4 channels $/ 300$ memory locations
- Switching capacity 5 A
- Data-key function
- Cycle function
- Cycle function
- Up to 300 permanent switchings by date
year ${ }^{\text {prog }}$
- Elapsed time and pulse counter
- Pulse function
- Security by PIN-Code
- Text based menu
- Illuminated display
- Data security through E2PROM
- Programmable with PC or Smartphone (see accessories)



# Masterclocks for DIN-rail mounting masterclocks <br> Short-circuit proof slave-clock-line <br> - Automatic adjustment of slave clocks <br> - Automatic time correction of slave clocks after supply voltage interruption <br> - Automatic daylight saving time (Europe, USA, Australia or none) with 60 additional pulses or pulse suppression for 1 hour of the slave-clock-line <br> indicator in display <br> - Security by PIN-Cod <br> - Illuminated display <br> - DCF / GPS functio <br> - 10 years battery-reserve (time switch <br> - Data security through EPROM 




- 1 slaver mounting 70 mm
24 VDC 3 k line for approx. 5 slave clock
$24 \mathrm{VDC}, 35 \mathrm{~mA}$, pole changing pulse)

- DIN-rail mounting 70 mm
- 1 slave-clock line for slave clocks up to 250 V ~
- A pulse amplifier is not needed

- DIN-rail mounting 70 mm
- 1 slave-clock line for approx. 20 slave clocks
( $24 \mathrm{VDC}, 150 \mathrm{~mA}$, pole changing pulse)
- Time Switch: Weekly timer/1 channel
- müller
Slave clock lines Channels SC 58.17 p




## Masterclocks pluggable into 19"-housing masterclocks

Short-circuit proof slave-clock-line
Automatic adjustment of slave clocks

- Automatic time correction of slave clocks after supply voltage interruption
- Automatic daylight saving time (Europe, USA, Australia or none) with 60 additional pulses or pulse suppression for 1 hour of the slave clock-line
- Monitoring of the slave-clock-line and malfunction indicator in display
- Security by PIN-Cod
- Illuminated display
- DCF / GPS function
- 10 years battery-reserve (time switch
- Data security through E2PROM

- 15 TE / 3 HE $128.5 \times 76.2 \mathrm{~mm}]$
- 2 slave-clock output-lines for approx. 200 slave
clocks ( $24 \mathrm{VDC}, 1,5 \mathrm{~A}$, pole changing pulse)
- Output-line 2 adjustable to a
- Ext. 24 VDC power supply unit required
power supply unit for slave clocks not included
- Time Switch: Weekly timer / 1 channel

- $15 \mathrm{TE} / 3$ HE $[128.5 \times 76.2 \mathrm{~mm}]$
- 1 slave-clock output-line for approx. 200 slave
clocks ( $24 \mathrm{VDC}, 1,5 \mathrm{~A}$, pole changing pulse)
Ext. 24 VDC power supply unit required/
- Time Switch: Yearly timer / 4 channels
- 15
- Accessory for 19"master clocks
- Power supply 19 "-housing
- Output current 1.5 A
 Sc 53.17 pro Output voltage
24 VDC NT 73.24 pro 24 VDC
- 84 TE / 2 HE [ $483 \times 86 \times 203 \mathrm{~mm}$ ]
slave-clock output-line for approx. 200 slave
clocks ( $24 \mathrm{VDC}, 1,5 \mathrm{~A}$, pole changing pulse)
No extra power suplly unit needed /
integrated 24 VDC power supply unit
- Frontswitch (potential-free) can be used to control
an arbitrary application $\stackrel{r}{5 C} 95.47$ pro Slave clock output lines Channels

Time Switch: Yearly timer / 4 channels


## Analogue time switches

analogue

- Daily or weekly program
- Manual override switch [Permanent ON Permare 100 h
- Captive setting keys
- Easy to read switching program
- DIN-rail mounting 17.5 mm
- Daily program
- Minimum switching interval 15 min.

| -paladi | -mülle | Version |
| :---: | :---: | :---: |
| $\square_{11120}$ | "vs 10.18 | Day without reserve |
| $\square_{114120}$ | ${ }^{\text {w }}$ Vs 14.18 | Day with reserve |

dN-rail mounting 35 mm and wall mounting
Daily program

- Minimum switching interval 30 min.
- Minute pointer

- DIN-rail mounting 52.5 mm and wall mounting
- Swity or weekly program
- Minimum switching interval day dial 30 min.
- Minimum switching interval week dial 2 h .
- Analogue display [with hands]

| -paladi | -müller | Version |
| :---: | :---: | :---: |
| 41120 | "vs 30.18 | Day without reserve |
| $\boxed{134120}$ | ${ }^{\text {W }}$ Vs 3.18 | Day with reserve |
| $\boxed{131420}$ | ${ }^{\text {v }}$ VS 30.38 | Week without reserve |
| $\square 13420$ | ${ }^{\text {W WS }} 34.38$ | Week with reserve |

Switchboard panel and wall mounting

- Daily or weekly program
- Switching capacity 16 A A . ${ }^{\text {Minimum switching interval day dial } 15 \text { min }}$
- Minimum switching interval week dial 1 h .
- Analogue display [with hands]



## Hour counters

E93

## our counters for panel mounting

Alternating Current or Direct Current versions
With universal connections
Touch proof connections according to VBG 4

## Hour counters for DIN-rail mounting

- Alternating Current or Direct Current versions
- Screw terminals (pull-up type)
- Touch proof connections according to VBG 4
- Panel mountin
- Integral locking spring

Mounting aperture: $50 \times 25 \mathrm{~m}$

- With operation indicator
- Type of protection front IP 65

- Panel mounting
- Retaining Clip in delivery included
- Mounting aperture square: $45 \times 45 \mathrm{~mm}$

Mounting aperture circle: 650
Counter capacity BG 999,999

- With operation indicator
- Type of protection front IP 50
(with ring seal 1000.003: IP 54)
- DIN-rail mounting $17,5 \mathrm{~mm}$
- Flush mount dimensions $45 \times 17,5 \mathrm{~mm}$
- Slim format
- No terminal cover
- Wiounter capacity 99,999
- Type of protection IP 50
- Type of protection IP 50

- DIN-rail mounting 35 mm
- Flush mount dimensions $45 \times 35 \mathrm{~mm}$
- Bx 70.29: without terminal cove
- Bx $0.89:$ with terminal cover
- Counter capacity $99,999 \mathrm{~h}$
- With operation indicator
- Type of protection IP 50




## Countdown timers

1 channel/change-over relay
Minimum interval 1 sec

- Input for start and stop (230 VAC)

Optical and acoustic signal on completion of time

Digital multifunctional relays

- 1 channel / change-over relay
- Minimum interval 0.1 sec
- External input
- 20 different functions
- Extended range of functions
- Data security through E2PROM

Time
Panel mounting

- Switching capacity 8 A
- Max. time TC 14 9:59:59 h:mm:ss
- Max. time TC 24 99:59:59 hh:mm:
- Repeatability accuracy $100 \%$
- Different trims available (see accessories)





## Staircase lighting timers

Manual override for timed or permanent lighting
3 - or 4-conductor cabling
Resettable

- Time delay: $284210: 30$ sec. to 20 min . 284 250: 1 min . to 12 min .


## staircase

- Glow lamp load: up to 100 mA
- 284250 : Advanced warning function included
- Zero-cross switching for relay-saving switching
- Staircase lighting timer - Electronic
- DIN-rail mounting 17.5 mm Zero-cross switching

| -paladin | Special function | Time delay |
| :---: | :---: | :---: |
| $\stackrel{284210}{ }$ |  | 30 sec. to 20 min. |
| $\stackrel{284250}{ }$ | Advance warning | 1 min. to 12 min. |



## Twilight switches

## Digital twilight switches

Suitable for modern lamps (LED, CFL, etc.)

- Adjustable lux threshold

Adjustable delay times

- Adjustable light-hysteresis
- With weekly timer function (e.g. for energy saving)


## Analogue twilight switche

- Suitable for modern lamps (LED, CFL, etc.)
- Adjustable lux threshold
- Data security through E2PROM


## Iux

$\qquad$


Dimmers for flush-mounted fitting

- For pushbuttons
- Installation in standard boxes behind a pushbutton possible
- Small design ( 13 mm )
- Easy to connect
- Memory function
- Protection against overload, short circuit and overheat

- LED Dimmer

With screw terminals

- Load leading edge 4-100 W
- Load trailing edge 4-350 W

| - paladin ${ }_{\text {by }}^{\text {biller }}$ | Suitable for |
| :---: | :---: |
| 872032 led | LED |

$\qquad$
dim

With litz wires and ferrules

| - paladin | Suitable for |
| :---: | :---: |
| 873010 rlc | RLC |

$\qquad$

| paladin <br> by müler | Suitable for |
| :---: | ---: |
| 873 030 led | LED |
| Housing colour |  |


| paladin <br> by müler | Suitable for |
| :---: | ---: |
| 873031 led | LED |
| Housing colour |  |



- Universal dimmer or TRIAC Dimmer
- Master-Slave-function: With the inclusion of further
dimmers higher loads can be controlled with one single pushbutton connection (Master)
- Memory function
- Protection against overload, short circuit and overheat




## KNX Universal interfaces for flush-mounted fitting <br> KNX

ETS with many advantages

- Simple programming and operation
- Various adjustment and control options
- Logical, simple and clearly structured softwar
- Compact housing
- 3 contigurable inputs
- 2 binary outputs (LED drivers / open-collector)
- Integrated room temperature control
- External temperature sensor available (see accessories)
-müller


Following functions and data available via KNX bus:
Binary and analog inputs / push-button interface (switching, dimming, temperature probe/-limiter, etc.)

- Binary outputs
- Temperature control



## KNX Time switches for DIN-rail mounting <br> $\widehat{K N X}$

ith many advantages

- Simple programming and operation

Various adjustment and control options

- Logical, simple and clearly structured software
- DCF / GPS function

|  |  |
| :--- | :--- | :--- | :--- |

Following functions and data available
via KNX bus:

- Time dependent switching (switching
valuator, scene control, HVAC,.
- Logic gates
- Time standard

Time standard
$\qquad$


## KNX Actuators for wall mounting <br> KNX

- ETS with many advantages:
- Simple programming and operation
- Various adjustment and control options
- Logical, simple and clearly structured software
- Compact housing


## - Buzzer <br> - Up to 3 configurable input objects <br> - Adjustable volume level ( (quite, medium, loud) Version <br>  $\xrightarrow{\text { AS }} 10.0 \mathrm{knx}$

- Adjustable sequence


Wall mouning
(withoutacecsson)


 $\underset{\substack{\text { vacuma } \\ \text { lseac }}}{\substack{\text { and }}}$

## KNX Outdoor sensors for wall mounting <br> KNX

- Sensors suitable for outdoor use (IP 54)
- Ideal for use as twilight switches
- Wall mounting
- Light- / brightness sensor
- Lighting control
- Daily time switch
- Light and temperature sensor
- Lighting and temperature control
- Daily time switch

| $\because$ müller | Sensor |
| :--- | :--- |
| LS 30.00 knx | Lux, $T$ |

Ls 30.00 knx Lux, T

- Lighting and temperature control
- Daily and astro time switch
- Provides time base to KNX bus
-müller FV 40.0 knx Sensor

Following functions and data available
via KNX bus:

- Time switch (standard)
- Time switch (s control

Following functions and data available via KNX bus:
Time switch (standard)

- Light control
- Temperature control

Following functions and data available via KNX bus:
Time switch (standard)

- Time switch (astro)
- Light control
- Temperature control

GPS coordinates and sunlight-data

- GPS coordinates
- Time standard



## KNX Room temperature-/room climate controls min <br> KNX

- Products for KNX installations

Room temperature- and room climate controls
(air quality sensors) for indoor use

- Compact housing
- Various functions and options
configurable via ETS (depending on model):
- Threshholds for temperature, humidity, VOC-concentration
- PI- and 2-point control
$\qquad$
$\square$
- Temperature control - Sensor for temperature

Temperature control and hygrostat atmospheric pressure
atmospheric pressure
-müller TS 10.00 knx
-mütrer GS 10.00 knx Sensor
$\square$

## Cimate control

Sensors for VOC, temperature, humidity and atmospheric pressure
-muller $T_{T}^{T S} 20.0 \mathrm{knx}$ Sensor
VOC, RH, T

Following functions and data available
via KNX bus:

- Temperature control
- Rel. humidity co
- VOC control
- Dir pressur

Air pressure
$\underset{\substack{\text { Wal mounting } \\ \text { Whithout accecss }}}{ }$




vollowing functions and data available
viakNX bus:
Temperature control

- Rel. humidid
- Air pressure
- VaV control

| Wal mouning |
| :---: |
| (withoutaccesson) |





## KNX Room temperature-/room climate controls for wall mounting KNX

Products for KNX installations
Room temperature- and room climate controls
(air quality sensors) for indoor use

- Modern and planar design
- Various functions and options
configurable via ETS (depending on model):
- Thresholds for terne
$\mathrm{CO}_{2}$-concentration, VOC -concentration and particulate matter concentration $\mathrm{PM}_{25}$-com
- PI- and 2-point control


Temperature control and hygrosta

- Sensors for temperature, humidity and
thospheric pressure
Additional function GS 31.10 knx :
Manual adjustment of set-point temperature $\pm 3^{\circ} \mathrm{C}$


Air quality sensor/ air quality control

- Sensors for $\mathrm{CO}_{2}$, temperature, humidity and
atmospheric pressure
Man
Manual adjustment of set-point temperature $\pm 3^{\circ} \mathrm{C}$
6541.00 knx


6S 41.10 knx

- Air quality sensor \& control
- Sensors for $\mathrm{CO}_{2}$, temperature, humidity and
atmospheric pressure
- Additional function GS 41.10 knx :

Manual adjustment of set-point temperature $\pm 3^{\circ} \mathrm{C}$

- Sensor for particulate matter / Air quality sensor
- Room climate control

Sensors for particulate ma
and atmospheric pressure
6570.00 knx

Following functions and data available
via KNX bus:
Temperature control

- Binary and analogue inputs


Following functions and data available via KNX bus:

- Temperature control

Bel. humiditity control
Binary and analogue inputs
Dewpoint

- Air pressure


Following functions and data available
via KNX bus:

- Temperature control

Rel. humidity cont
co control
Dewpoint

- Dir pressur
- Vair pressure


Following functions and data available

## via KNX bus:

Temperature control
Rel. humidity contr

- $\mathrm{CO}_{2}$ control
- Binary and analogue inputs

Dewpoint

- Air pressure
- VAV control



## Following functions and data available

via KNX bus:
Temperature control
Rel. humidity control
VOC control
Dewpoint

- Air pressure



## KNX Dimmers for DIN-rail mounting

Products for KNX installations
Panic funktion
Memory function
Protection against overload, short circuit and overheat

- Scene control
- Control knob for dimming function tes
- even without KNX-bus connected
- DIN-rail mounting $87,5 \mathrm{~mm}$


## KNX




- Dimming actuator for dimmable RGBW LED strips

4 channels with up to 10 A per channel

- Configurable as 4 single colored LED strips dimmer
- RGB +W or RGBW LED strips


Dimming actu ballasts (ECG's)
3 channels up to 64 ballasts per channel


- Max. 128 devices in tota
- 1 group per channel
- Broadcast communication



## KNX-RF S-mode products for flush-mounted fitting

- Products for KNX installations

KNX-RF 1.R S-mode

- Input for wired push-buttons
- Protection against overload, short circuit and overheat
- RF-repeater function
- Scene control
- Stairc ase lighting timer function
- Cycle function


## KNX

$r f^{\prime \prime}$

|  | - Switching actuator <br> - $1-2$ channels <br> - Switching capacity 16 A / 250 V <br> - Functions: <br> - switching (on / off) - timer <br> - blind control (2 channels 683732 rfs) |  | $\begin{gathered} \text { Channels } \\ \hline 1 \\ \hline 2 \\ \hline \end{gathered}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


-paladin $\quad$ Suitable for
683830 ris RLC \& LED
0.00000


| LED |
| :--- |
| strps |

- Dimming actuator for LED strips up to $12-48 \mathrm{~V}$
- Pulse width modulation (PWM) $12-48 \mathrm{VDC}$
- Memory function




## KNX-RF S-mode senders and sensors

- Products for KNX installations

KNX-RF 1.R S-mode
Test mode for quick status request

- Battery operated (lifetime approx. 8 years)
- Pushbutton interface / sender
- 2 binary inputs (configurable)
- Sensor for temperature
- Adjustable alarm conditio
- Input for up to 2 wired push buttons for

RF transmission


- Sensor for temperature, light and humidity - Adjustable alarm conditions

KNX
rf ${ }^{\prime \prime}$


## Room climate controls Modbus \& Analogue <br> climate

- Sensors for indoor use (IP 20)

Sensors for indoor use (IP 20) configurable

- Compact housing (wall-mounting)
- Adjustable baud rate
- Adjustable parities
- Sensor for temperature
- Control output ( $0-10 \mathrm{~V}$ ) for measured values of
temperature
mperature
- Sensor for humidity
- Sensor for atmospheric pressure
- 2 control outputs $(0-10 \mathrm{~V})$ for measured values of
relative humidity and temperature
- Sensor for $\mathrm{CO}_{2}$
- Sensor for temperatu
- Sensor for humidity
- Sensor for atmospheric pressure
$(-10 \mathrm{~V})$ for measured values of
$\mathrm{CO}_{2}$-concentration, relative humidity and temperature

Following registers available via Modbus:

- Temperature

ollowing registers available via Modbus:
- Temperature

Rel. humidit
Dew point

- Absolute atmospheric air pressure


Following registers available via Modbus:

- Temperature

Rel. humidity
${ }^{-\mathrm{CO}_{2}}$

- Absolute atmospheric air pressure



## Bluetooth system

- Multifunctional devices (remote control) for flush mounting
- Directly programmable with Smartphone (Bluetooth)
- Range of 75 m



## Bluetooth System

Sensor as accessory for mi.puck system EA 46.22 pro

- Range of 75 m
- Sensor for light / brightnes
- Sensor for temperature
- Sensor for humidity

Exchangeable battery (included)/ battery operated
(lifetime approx. 6 years)
To be used with mi.puck system (EA 46.22 pro4)

Following datas available via mi.puck $\frac{\text { system: }}{\text { Brightn }}$

- Brightness value
- Rel. humidity value



## Save'n carry App

Free app for programming easy and pro4 time switches
Remote control for mi.system products
Pro4 products can be programmed directly with
Smartphone via Bluetooth
Easy products can be programmed directly with
Smartphone via NFC


- Easy and fast programming via Smartphone or tablet
- Reading and writing to the time switch without additiona
- Intuitive user interface
-müller Save'n carry App


Rights to technical amendments reserved - Page 50


- müller

2020| 2021
also at: www.hugo-mueller.com

## : h u g o m ül| er

switching controlling counting

Hugo Müller GmbH \& Co KG
Karlstraße 90
D-78054 VS-Schwenningen
Germany
Tel. +49 (0) $7720 / 80836$
Fax +49 (0)7720/808388
info@hugo-mueller.de
wwwhugo-mueller.com

